Prostate Cancer in Virginia

Risk Factors[1]

- The strongest risk factors for developing prostate cancer are age (the majority of cases occur in men 65 years of age and older), race/ethnicity (men of African descent are at especially high risk of developing and dying from the disease), and family history.
- Dietary factors may also be associated with risk of prostate cancer (animal fat with increased risk and lycopene—an antioxidant found in tomatoes and other red/pink fruits and vegetables—with decreased risk). Being obese may predispose men to dying from the disease.

Warning Signs and Symptoms[1]

- There are often no symptoms in the early stages of prostate cancer.
- When symptoms occur, they often include urinary problems.
- Late-stage disease that has spread to the bone may cause back, chest, or pelvic pain.

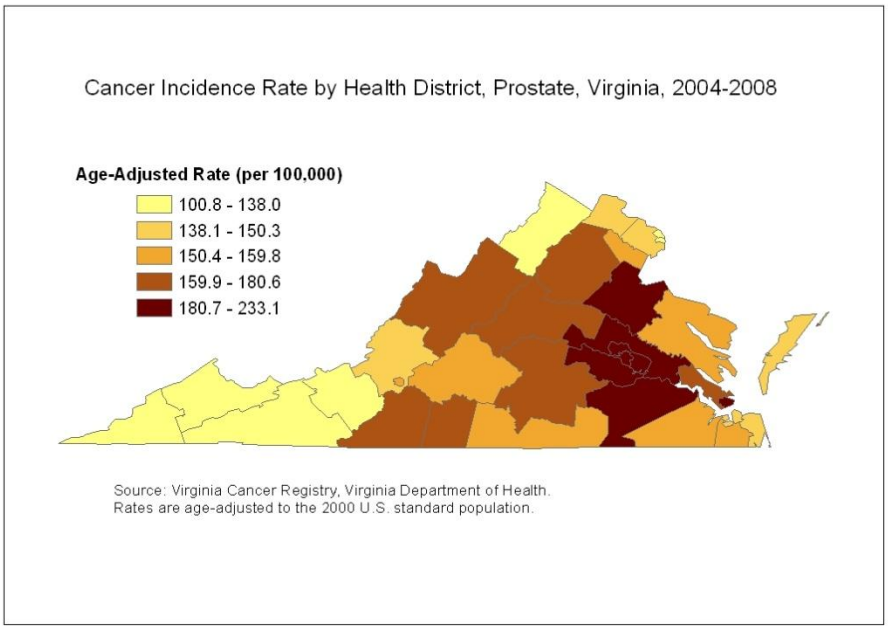
Early Detection[1]

- There is currently not strong evidence to recommend routine screening.
- Screening by PSA blood test and digital rectal exam is an option to consider for average-risk men beginning at age 50 (earlier for high-risk men including men of African descent and those with a family history). Men should discuss prostate screening with their doctors.

Prostate Cancer Facts

- Prostate cancer is the most commonly diagnosed cancer (excluding non-melanoma skin cancer) and the second leading cause of cancer death among men in the United States. One in six men will be diagnosed with prostate cancer during his lifetime.[1]
- Over the 2004-2008 time period, the incidence rate of prostate cancer among men in Virginia was 159.4 cases per 100,000.[2] (U.S. rate=156.0 cases per 100,000)[3]
- Figure 1 shows incidence rates of prostate cancer by health district in Virginia. Chesterfield, Richmond City, and Crater had the highest incidence rates of prostate cancer among the 35 health districts.[2]

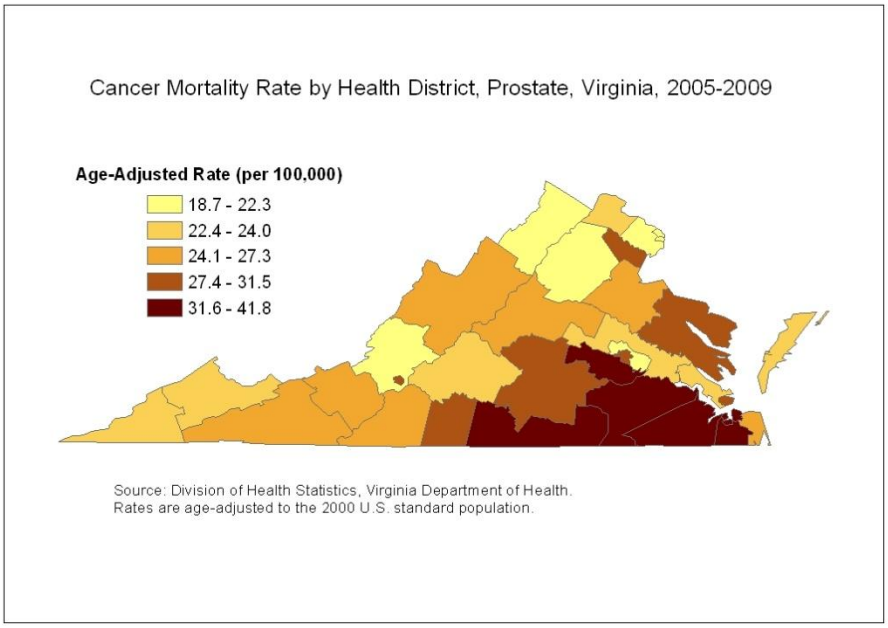
Figure 1



Prostate Cancer in Virginia

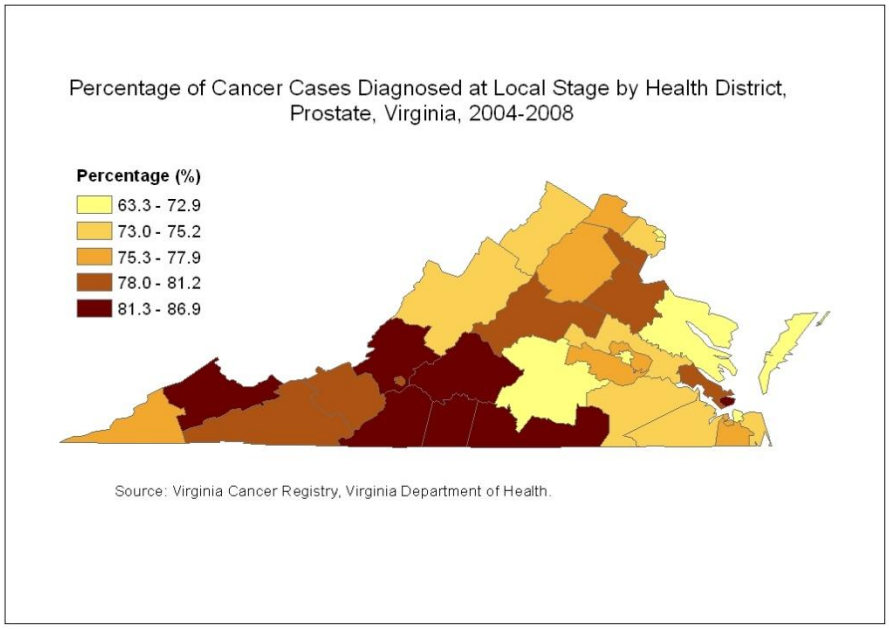
- Over the 2005-2009 time period, the mortality rate from prostate cancer among men in Virginia was 25.7 deaths per 100,000.[4] (U.S. rate=23.5 deaths per 100,000)[5]

Figure 2



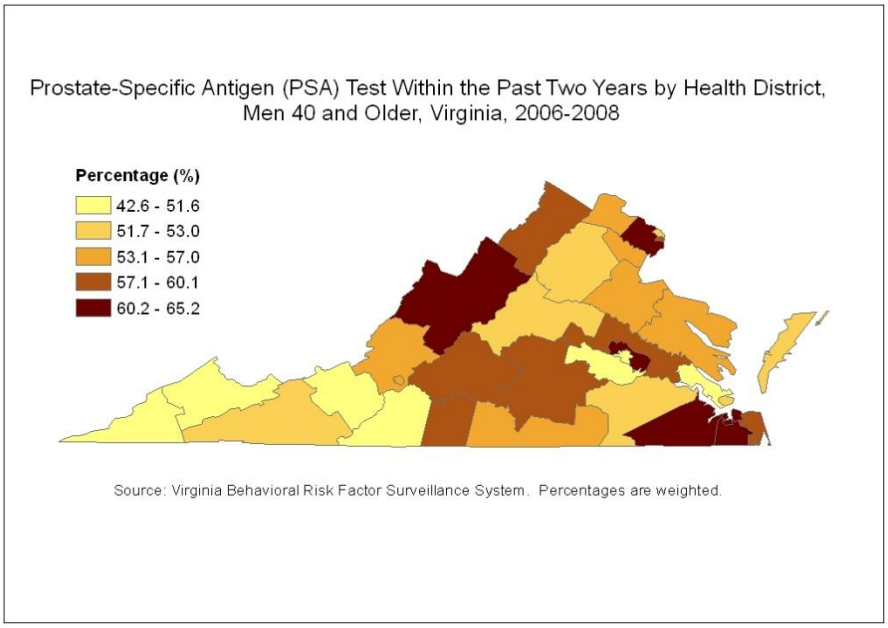
- Figure 2 shows prostate cancer mortality rates by health district in Virginia. Crater, Portsmouth, and Western Tidewater had the highest mortality rates from prostate cancer among the 35 health districts.[4]
- Incidence rates were over 65% higher in African-American men compared to white men in Virginia.[2]
- Mortality rates were about 2.5 times greater in African-American men compared to white men in Virginia.[4]
- Prostate cancer has a five-year relative survival rate of about 100 percent if diagnosed in its earliest (local) stage.[1] In Virginia, 77 percent of prostate cancer diagnosed was local stage.[2]
- Figure 3 shows the percentage of prostate cancer diagnosed local stage by health district in Virginia. Richmond City, Alexandria, and Eastern Shore had the lowest percentages of prostate cancer cases diagnosed local stage among the 35 health districts.[2]
- The percentage of prostate cancer cases diagnosed local stage was similar for whites (78%) and African-Americans (76%) in Virginia.[2]
- According to 2008 health behavior survey data, 59% of Virginia men 50 years and older reported having had a PSA screening test in the previous two years (U.S. average=55%).[6]

Figure 3



- Figure 4 shows the prevalence of PSA screening testing by health district in Virginia. Richmond City, Lenowisco, and Peninsula had the lowest percentages of PSA screening among the 35 health districts.[7]
- PSA screening rates were lower among men who were less educated and uninsured.[7]
- In Virginia in 2009, there were 1,694 inpatient hospitalizations for prostate cancer, at a total cost of over $61 million. The average length of stay was 2.4 days and the average charge per stay was $36,059.[8]

Figure 4



[1]American Cancer Society *Cancer Facts & Figures 2009* (http://www.cancer.org)
[2] Virginia Cancer Registry. Based on combined data from 2004-2008. Rates are age-adjusted to the 2000 U.S. standard population.
[3] Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). *SEER Cancer Statistics Review, 1975-2008*, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011. Based on combined data from 2004-2008. Rates are age-adjusted to the 2000 U.S. standard population.
[4] VDH Division of Health Statistics. Based on combined data from 2005-2009. Rates are age-adjusted to the 2000 U.S. standard population.
[5] Xu JQ, Kochanek KD, Murphy SL, Tejada-Vera B. Deaths: Final data for 2007. National vital statistics reports; vol 58 no 19. Hyattsville, MD: National Center for Health Statistics. 2010. Available from: http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf. National rate is the 2007 age-adjusted rate, which is comparable to the state five-year interval midpoint.
[6] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data.* Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2008. (http://apps.nccd.cdc.gov/brfss) Accessed 6/2/10.
[7] Virginia Behavioral Risk Factor Surveillance System. Based on 2006 and 2008 (pooled) data. Percentages are population-weighted.
[8] VDH Virginia Health Information Hospital Discharge Patient-Level Dataset.

University of Virginia Health System Cancer Center

This publication was supported by the Cooperative Agreement Number #5U58DP000780 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent official views

of the Centers for Disease Control and Prevention.